

**DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS**

COMPLETE STATEMENT

OF

**LIEUTENANT GENERAL ROBERT B. FLOWERS
CHIEF OF ENGINEERS
U. S. ARMY CORPS OF ENGINEERS**

BEFORE

**THE SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE**

ON

**THE CIVIL WORKS PROGRAM BUDGET
FISCAL YEAR 2004**

MARCH 5, 2003

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MR. CHAIRMAN AND DISTINGUISHED MEMBERS OF THE SUBCOMMITTEE:

INTRODUCTION

I am honored to be testifying before your subcommittee today, along with the Acting Assistant Secretary of the Army for Civil Works, the Honorable Les Brownlee, on the President's Fiscal Year 2004 (FY04) Budget for the United States Army Corps of Engineers' Civil Works Program.

My statement covers the following 6 topics:

- Summary of FY04 Program Budget,
- Civil Works Program Backlogs,
- Future Water Challenges
- Civil Works Program Transformation,
- Need for a More Robust Business Management System, and
- Other Thoughts.

SUMMARY OF FY04 PROGRAM BUDGET

Introduction

This is a good budget. New funding for the Civil Works Program, including the Direct and Reimbursed programs, is expected to approach \$5.410 billion.

As shown in Table 1, Direct Program funding, including discretionary and mandatory funding appropriated

directly to the Corps, totals \$4.688 billion. Discretionary funding, including amounts ultimately replaced by mandatory funding, totals \$4.194 billion; additional mandatory funding totals \$494 million.

Reimbursed Program funding is projected to be \$722 million.

Direct Program

The proposed budget reflects the Administration's commitment to continued sound development and management of the nation's water and related land resources. It provides for continued efficient operation of the nation's navigation, flood protection, and other water resource management infrastructure, fair regulation of the nation's wetlands, and restoration of the nation's important environmental resources, such as the Florida Everglades.

The budget provides for continued funding of nearly all policy-consistent studies and projects underway. It also provides for funding of 5 new reconnaissance studies under the General Investigations (GI) program.

Reimbursed Program

Through the Interagency and Intergovernmental Support Program we help non-DOD federal agencies, state, and other countries with timely, cost-effective implementation of their programs, while maintaining and enhancing capabilities for execution of our Civil and Military Program missions. These customers rely on our extensive capabilities, experience, and successful track record. The work is principally technical oversight and management of engineering, environmental, and construction contracts performed by private sector firms, and is fully funded by the customers.

Currently, we provide reimbursable support for about 60 other federal agencies and several state and local governments. Total reimbursement for such work in FY04 is projected to be \$722 million. The largest share -- nearly \$165 million -- is expected from the Environmental Protection Agency (EPA) for cleanup of wastes at numerous sites under its Superfund program. 90% of Reimbursed Program funding is provided by other federal agencies.

Staffing

Total staffing for the Civil Works Program for FY04 is 24,800 FTEs, unchanged from FY03. Of the total, 23,700 FTEs are for the Direct Program and 1,100 FTEs are for the Reimbursed Program. Total staffing is allocated 90.6% to districts, 4.9% to laboratories and other separate field operating agencies, 2.7% to division offices, and 1.8% to headquarters.

CIVIL WORKS PROGRAM BACKLOGS

Introduction

In the broadest sense, "backlog" is unfunded work. For the Civil Works Program, it is defined more specifically, as the federal share of unfunded continuing and future work at some point in time, e. g., the

beginning of some funding period, such as FY04. This definition can be further variously qualified. Such continuing and future work could include, for example, only work that is currently programmed on projects now actively under physical construction, while excluding such work where a project has not yet begun physical construction or where physical construction has been suspended for more than a year.

Construction Program

At the end of FY04, it will cost more than \$21 billion to complete the construction projects of the Construction, General, Program funded in the FY04 budget, which represents essentially no change from last year. The FY04 budget focuses resources on these projects as part of a comprehensive strategy that would deliver benefits more quickly to the many Americans who rely on worthy projects already underway, while increasing the net return from the nation's investment in the Civil Works program.

If one were to add the costs of other conceivable work on construction projects not supported in the budget; on proposed projects that are in the planning stage or undergoing pre-construction engineering and design, and potential projects that already have advocates but are not yet officially on the drawing board, the total costs would mount quickly.

Maintenance Program

Water and related land resource management facilities of the Civil Works Program, are vast. As stewards of this infrastructure, we are challenged to ensure that it continues to provide an appropriate level of service to the nation. Sustaining such service, and the resultant flows of benefits, through proper operation and maintenance projects, is becoming increasingly more difficult because the costs of these efforts are growing as our infrastructure ages.

To facilitate sensible budgeting, the maintenance backlog is prioritized into two parts -- high and lower priority work. The high priority work includes maintenance would ensure attainment of performance goals -- specifically, providing continued levels of service -- in the budget year. Delay in accomplishment of this work could result in more extensive and costly repairs or an increased risk of falling short of performance goals. The lower priority work is less urgent. It includes routine maintenance, major repairs, replacement of outdated or worn facilities, management improvement studies, and correction of environmental deficiencies.

At the end of FY04, it will cost more than \$1 billion to complete the high priority maintenance work of the Operation and Maintenance, General, Program funded in the FY04 budget, which represents an increase of \$127 million over last year. More than half of this work is for navigation facilities, which consists largely of dredging and repair of structures such as locks, dams, breakwaters, and jetties. The balance of the high priority backlog in the Operation and Maintenance account is for flood damage reduction, recreation, and environmental stewardship, and hydropower generation facilities. It consists of work such as spillway repairs, seepage control, embankment toe protection, access road and recreation facility repairs, and environmental compliance actions.

In our effort to reduce the maintenance backlog, we are looking closely at how we determine the appropriate level of service and are searching for ways to reduce costs and thereby accomplish more with available resources.

FUTURE WATER CHALLENGES

The nation is facing important water and related land resources management challenges with potentially serious implications. I would like to offer the following observations and interpretations:

- As the world's climate changes, the prospect of changing hydrology and water distribution and, in turn, environmental and socioeconomic conditions, requires us to do a better job of anticipating the need for changes in water and related land resources management facilities, systems, and practices, and to improve our methods for effecting such changes.
- As global markets expand, international commerce will demand more efficient domestic ports and harbors, and improved vessel and intermodal cargo handling facilities.
- With many properties and major populations located in the nation's floodplains, flooding will continue to be of concern. Moreover, if current trends continue, flood-prone lands and natural flood management systems will be compromised, and the threat of flood damage will increase.
- Ongoing migration of the nation's population to coastal plains and coasts, and attendant property development, will increase risks of loss from coastal storms and hurricanes.
- The ongoing migration to coastal plains and coasts will put increasing pressure on coastal habitat, especially wetlands, and other fish and wildlife ecosystems.
- Through Water Resources Development Acts of 1996 and 1999 (WRDA 96 and WRDA 99), the American public placed the health of natural ecosystems in the forefront of the Corps of Engineers' priorities. These acts, providing additional authorities to the Corps for aquatic ecosystem restoration, wetlands management, and nonstructural floodplain management.
- As the nation's water and related land management infrastructure ages, it must be rehabilitated, modified, replaced, or removed.
- As the nation's population grows, there will be growing conflicts among multiple interests within watersheds wanting to use available water and related lands for diverse needs.
- The American public has a strong and growing interest in downsizing the Federal Government and, in turn, its workforce. In light of this, ongoing outsourcing and privatizing for accomplishment of government work, including engineering, will increase. An implication of this is that the nonfederal sector, including state and private interests, will have to share greater responsibility in water and related land resources management.

Policy for Complex Solutions

Our current and future water resources challenges are complex, involving competing and conflicting demands on use of the nation's limited water and related land resources. They require, and should lead to, significant further changes in our evolving national policy. Development of such policy will require collaboration of many government organizations, at all levels, working for the collective good of the nation.

CIVIL WORKS PROGRAM TRANSFORMATION

Throughout its long and distinguished history, the Civil Works Program has continually changed in response to then-relevant factors, including advances in science, methods, and processes, changing public values and priorities, and laws. For our program to remain a viable contributor to national welfare, we must remain sensitive to such factors, and continue to reorient, rescope, and refocus the program in light of them. To that end, I'm committed to reforming the Civil Works Program to meet the nation's current water and related land resource management needs.

Advising me in my effort to reform the Civil Works Program is the newly formed Corps Reform Network, comprising all parties interested in improving our program. On 9 February 2003 the Steering Committee for the Corps Reform Network met at Corps headquarters in Washington, D. C. to further the effort.

Let me tell you about some of the major steps we've already taken:

- Last year I issued the Corps' Environmental Operating Principles - a clear commitment to accomplishing our work in environmentally sustainable ways - with the express purpose of instilling the principles as individual values in all members of the Corps team.
- We've developed a rigorous training curriculum to improve our planning capability. This will ensure that the best science is applied in project development and that our planners will integrate economics and ecology in developing Corps projects. We're cooperating with major universities and have begun to sponsor graduate education in water resources planning. We've re-instituted our very successful Planning Associates Program.

Our FY04 Budget for the Research and Development (R&D) Program includes funding to improve economic models; one of our principal efforts will be to develop the Navigation Economic Technologies program, focusing on economic methods and tools for navigation evaluations designed to address, update, and improve specific models, and to address modeling issues raised by the Corps and others. We need to make substantial modeling advances to support decision making on proposed major investments.

- We've redoubled our efforts to engage federal, state, and local agencies, stakeholders, and the public in meaningful dialogue.
- The Corps and ASA(CW) have allocated additional resources to improve our internal review capability, and are considering other measures to further improve such capability.

Let me also tell you about the major steps we'll be taking in the months ahead:

- A report of the National Academy of Science (NAS) came out strongly in support of an independent review process. We have proposed \$3 million in our FY04 budget to initiate selected independent reviews.
- We have proposed an ex-post-facto study of a sample of Corps projects in order to determine how well the projects are delivering anticipated benefits and to apply lessons learned to improve our current planning process. The FY04 Budget includes \$2 million for this important effort.
- We'll be implementing every appropriate recommendation from the NAS study on planning methodologies that Congress requested in WRDA 2000.
- We'll be working with the Administration and Congress to establish one or more national centers

of expertise, staffed with some of our best engineers, scientists, and economists, that will be responsible for studies of projects that are likely to be costly, complex, or controversial.

We're committed to change that leads to open and transparent modernization of the Civil Works Program for the 21st Century. To this end, we're committed to continuing the dialogue with you and the Corps Reform Network Steering Committee. Additionally, I have issued communication principles to ensure open, effective, and timely two-way communication with the entire community of water resources interests. We know well that we must continue to listen and communicate effectively in order to remain relevant.

NEED FOR A MORE ROBUST BUSINESS MANAGEMENT SYSTEM

Introduction

We have a reputation as the world's premier public engineering organization, which we aim to keep. Our challenge, to this end, is to "stay at the leading edge" in service to the Army, federal government, and nation. The degree to which we will succeed will depend largely upon improved business operations. To enable providing service of highest relevance, we must improve our operations for more expeditious and productive performance. In recognition of this, I have been engaged, throughout my tenure as Chief, in an effort, initiated by my predecessor, to reengineer the organizations and business operations of the Corps of Engineers Civil Works and Military Programs. In that effort we have selected the project management way of doing business, or "modus operandi," as the basis for developing a business management system and attendant organizations and operations. Accordingly, we have come to call our effort the Project Management Business Process (PMBP) Initiative.

Project Management Business Process Initiative

Rationale for Selection

Our philosophy is that everything we do is a project, and every employee is a member of some one or more project teams. Selection of the project management modus operandi as the basis for developing a business management system is consistent with this philosophy. Furthermore, the Corps has used project management principles and methods in accomplishment of much of its business throughout its existence, providing seamless, flexible, efficient, and effective service for its customers. Applying this highly successful model to all of our business was eminently logical.

Purpose

In order that our 41 districts, 8 laboratories, 2 centers, and 8 divisions to work together as one United States Army Corps of Engineers (USACE), we must establish common business practices that transcend organizational and geographic boundaries. Accordingly, the purpose of our PMBP Initiative is to develop, implement, and sustain a set of modern, standardized business processes, based on industry's best business practices, and an automated information system (AIS) to facilitate use of the PMBP throughout USACE.

Implementation

The PMBP Initiative focuses on the business relationships between and among people, including customers and stakeholders; process, and communication. To create and sustain the PMBP we must examine and define, to the PMBP system, how we do our work. In the process, we are transforming ourselves into a customer-focused, team-based, learning organization. Implementation of PMBP will be accomplished in four steps, described below, under the aegis of subject matter experts from all functions and echelons of the Corps.

Policy and Doctrine

We started this initiative with development of the Engineer Regulation ER 5-1-11, entitled "USACE Business Process," to set forth policy and doctrine on how we will do business. It outlines goals, objectives, and strategy for using teams to accomplish projects, with customers as members of such teams. The regulation outlines seven major imperatives which apply to all work of all the Corps, specifically, that

- for any project there is one team and one project manager,
- plan for success and keep commitments,
- the project delivery team is responsible for project success,
- measure quality with the goals and expectations in the Project Management Business Process (PMBP),
- manage all work with the PMBP Manual, using corporate automated information systems,
- build effective communications into all activities, and
- use best practices and seek continuous improvement.

This regulation is the foundation for the PMBP system. It emphasizes transformation of the Corps team into project-focused teams sharing resources Corps-wide, as necessary, to deliver quality projects on schedule.

Business Process Manual

The PMBP Manual provides guidance for achieving our policy and doctrine. It establishes standard business processes for Corps-wide application that:

- ensure consistency in program and project execution,
- focus on meeting customer expectations,
- set parameters for means to measure progress across the entire organization, and
- enhance our ability to function both regionally and virtually with efficient management of diverse resources.

These standard business processes are used to accomplish project delivery and provide services. They enable sharing workforce resources throughout the Corps to complete projects. If a project delivery team needs someone with a particular skill to accomplish work on its project, it can borrow service of whomever may be available with that skill in any Corps office. The processes enable effective management of projects in all lines of business in our Civil Works and Military Programs. The processes are open for continuous improvement, giving all team members opportunity to change them for the better. This will lead to addressment of concerns of project managers, technical experts, and customers to assure improvements in quality, project performance, and customer satisfaction.

Automated Information System

Management of projects in accordance with the PMBP will be facilitated through use of "P2" - an automated information system. This system, expanding upon and replacing PROMIS, will be used by the Corps team for project delivery in all lines of work. It comprises commercial-off-the-shelf (COTS) software configured with templates of our standard business processes to assist project delivery teams in managing their projects. The manufacturers of this software - Oracle, Primavera, and Project Partners - are assisting the Corps in configuring the software to provide the templates.

P2 software employs state-of-the-art technology embracing program and project management best-practices. It will become the principal tool of Corps project and technical managers in collecting, manipulating and storing program and project data. It will provide a single source of all project-related information for all programs and projects managed by field commands, and will interface with other modernized systems to assure single-source data entry. It will enable streamlined project and resource management, affording wider availability and Web interfaces. And, finally, because of lower costs to maintain and upgrade COTS software in future years, P2 will be more cost-effective than PROMIS.

PMBP Training

We have developed a training curriculum to promote PBBP as our new way of conducting business within the Corps and to guide individuals and organizations in the progressive development of skills for using PMBP. The curriculum promotes cultural change through individual self-paced compact-disk courses followed by small group discussions on the courses. Each individual covers the material and shares his/her interpretation with others in facilitated small group discussions. This process promotes common understanding of PMBP, its purpose, the roles of individuals, and the means to develop projects through teamwork.

Summary

In summary, the PMBP system, including P2, is being implemented Corps-wide to manage all Corps projects more efficiently and effectively. Supporting policy and doctrine, definitions of our business processes, and curriculum are in now in place Corps-wide. The P2 part of the system will be completed and fully tested by the end of FY03; however, to avoid disruption of FY03 financial closeout, we won't deploy P2 until mid-October. Once fully deployed, the PMBP system will greatly enhance our ability to better support the Army, other federal agencies, and the nation.

OTHER THOUGHTS

The National Welfare

Water resources management infrastructure has improved the quality of our citizens' lives and provided a foundation for the economic growth and development of this country. Our systems for navigation, flood and storm damage reduction projects, and efforts to restore aquatic ecosystems contribute to our national welfare. The stream of benefits, realized as reduced transportation costs, avoided flood and storm damages, and improvements in environmental value can be considerable.

Research and Development

Civil Works Program research and development provides the nation with innovative engineering products, some of which can have applications in both civil and military infrastructure spheres. By creating products that improve the efficiency and competitiveness of the nation's engineering and construction industry and providing more cost-effective ways to operate and maintain infrastructure, Civil Works Program research and development contributes to the national economy.

The National Defense

The Civil Works Program is a valuable asset in support of the National Security Strategy in that it provides a way to maintain a trained engineering workforce, with world-class expertise, capable of responding to a variety of situations across the spectrum of national defense. This force is familiar with the Army culture and responsive to the chain of command. Skills developed in managing large water and land resource management projects transfer to most tactical engineering-related operations. As a byproduct, Army Engineer officers assigned to the Civil Works Program receive valuable training, in contracting and managing large projects.

Additionally, the Civil Works Program has provided, and continues to provide water and related land resources infrastructure critical to national defense. Likewise, it has accomplished and continues to accomplish research and development that support our homeland security and war-fighting capability.

Homeland Security

The Corps is also a key member of the Federal Response Plan team with proven experience in support of FEMA's response to both natural disasters and events such as World Trade Center disaster (9/11).

Following 9/11 we completed 306 security reviews and assessments of our inventory of locks, dams, hydropower projects and other facilities to determine vulnerability to terrorist threat and potential consequences of such an attack. We improved our security engineering capability and identified and prioritized critical infrastructure. Utilizing supplemental appropriations provided in FY 2002 (PL 107-117, \$139M), we have initiated the design and implementation of security improvements on 85 of our current list of 306 critical facilities. We have also initiated security improvements at administrative facilities to reduce risks to our employees.

\$104 million of the Operations and Maintenance funds provided in this budget are targeted for facility security. We will direct funding to those priority projects at which there is potential for catastrophic consequences resulting in loss of lives or economic consequences of greater than \$200 million, and continue security improvements at our administrative facilities. The vulnerability assessments produce a recommended system of improvements targeted to reduce risks associated with potential threats to facilities. Elements of the proposed systems can include cameras, lighting, fencing, structure hardening, and access control devices designed to improve detection and delay at each facility

Support to War-fighting Efforts

When the Army goes to war, personnel of the Civil Works Program provide vital information to the battlefield. Their knowledge of beach dynamics helps determine the sites for shore landings. Their expertise in soil mechanics determines the best routes for armored vehicles. Their experience in work on winter navigation helps the Army negotiate frozen rivers. And commanders at all levels make use of topographic products and satellite based navigation systems developed by the Corps.

CONCLUSION

The President's FY04 Budget for the Civil Works Program is a good one. However, we must continue to find ways to reduce our costs and shift more of those remaining to direct beneficiaries of our services. Meanwhile, we will do our very best to execute the Civil Works Program for maximum benefit to the nation.

Under both our Civil Works and Military Programs, we are committed to staying at the leading edge in service to the nation. In support of that, we are working with others to transform our Civil Works Program. We're committed to change that leads to open and transparent modernization of the Civil Works Program for the 21st Century. We also are strengthening our business management capability for best performance of both programs Corp-wide.

Thank you, Mr. Chairman and Members of the Committee. This concludes my statement.